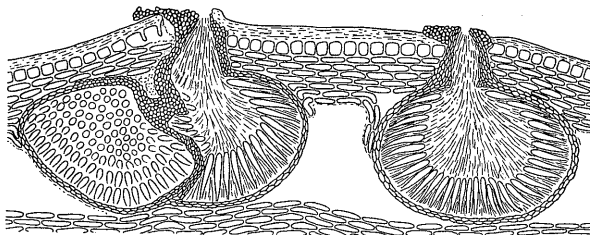


Ken KATUMOTO*: Notes on fungi from western Japan (10)

勝本 謙*: 西日本産菌類論考 (10)

94. *Nodulosphaeria rosae* Hino et Katumoto, sp. nov.

Pseudotheciis sparsis vel subgregariis, frequenter confluentibus, immersis, subglobosis, plane-globosis vel leviter pyriformibus, 250-300 μ diam., 300-350 μ altis; peridiis membranaceis, diseriebus cellularum compositis, 10-15 μ crassis, brunneis, ex cellulis leviter elongatis vel prismaticis et 10-15 \times 5-7 μ compositis; ostiolis papillatis, cum distincte collo 100-150 μ alto et crasso pseudosclerenchymatico, mox leviter erumpentibus; ascis numerosis, bitunicatis, cylindraceis vel cylindro-clavatis, apice rotundatis, breviter stipitatis, octosporis, 54-75 \times 6-11 μ ; paraphysoidis copiosis, filiformibus, simplicibus, hyalinis, 1-1.5 μ crassis; ascosporidiis distichis, fusoidis, triseptatis, ad septa constrictis, apice utrinque rotundatis, pallide olivaceis guttatis,

Fig. 1. *Nodulosphaeria rosae*: Pseudothecia \times 100.

12-18 \times 4.5-5.5 μ appendicibus terminalibus ad apicem utrinque ascosporae mucilaginis, semiglobosis, hyalinis, ca. 2 μ diam.

Hab. in caulibus calycibusque emortuis
Rosae centifoliae L.

Tyôhu in Simonoseki, Prov. Nagato (Nov. 3, 1964. K. Katumoto—Typus in Herb. FAUY); Yosida in Yamaguti, Prov. Suô (Nov. 7, 1967. K. Katumoto).

The peridium of pseudothecium is rather thin, of uniform thickness, and formed with two layers of cells of which the outer ones are elongate polyhedral and brownish, and the inner ones are elongate polyhedral to somewhat lenticular, and hyaline. The ostiolate portion of peridium forms distinct papillum which is long protruded, finally more or less erumpent and without apical bristles. The ascospores are at first fusiform or biconical and continuous, then 1-septated at the middle portion, and finally divided into four cells of which the second from the apex of ascospores

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is distinctly swollen. The terminal appendages are always attached to both apical portion of ascospores, hemiglobose, gelatinous, hyaline and about 2μ in diameter.

The present fungus surely belongs to the genus *Nodulosphaeria* Rabenh. in respect to the characters of peridium and ascospores. *N. submodesta* (E. Müller) Holm and *N. araucariae* Hino et Katumoto are unique species of the genus in respect to the morphology of 3-septated ascospores of which the second cell from the apex is distinctly swollen, while other species of the genus are known to possess much (4-14) septated ascospores. The writer's fungus somewhat resembles *N. submodesta*, but is easily distinguished from the latter species in respect to smaller size of asci and ascospores and absence of apical bristles in pseudothecia. Holm discussed on the genus *Nodulosphaeria* in detail, and suggested that *N. submodesta* is to be the most primitive species of the genus regarding spore septation and absence of papillum. *N. rosae* may also belong to the most primitive group of the genus, though the apical papillum of the pseudothecium distinctly develops.

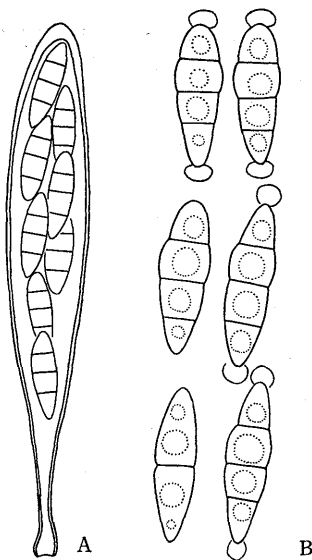


Fig. 2. *Nodulosphaeria rosae*: A. ascus $\times 1,000$. B. ascospores $\times 1,300$.

95. ***Gnomonia setacea*** (Pers. ex Fr.) Ces. et de Not. var. ***megalocarpa*** Hino et Katumoto, var. nov.

A typo differt peritheciis, ascis et ascosporidiis distincte magnis.

Peritheciis subepidermatibus, depresso-globosis, $500-600\mu$ diam., $400-480\mu$ altis, atro-brunneis, nitidulis; contextu coriaceo, pseudoparenchymatico, $15-20\mu$ crasso, ex cellulis exterioribus polyhedricis, paulum planis, $20-40 \times 12-17\mu$, et interioribus plane lenticularibus, hyalinis; ostioli longi-tubulosis, epumpentibus, $0.8-1.8\text{ mm}$ longis, ca. 60μ crassis, numeroso periphysatibus; ascis copiosis, clavatis, longi-stipitatis, apice rotundatis vel obtusis, octosporis, $50-60 \times 8-13\mu$; ascosporidiis plerumque tetrastichis, fusoidis, 1-septatis, ad septum non constrictis, apice utrinque acuminatis, erectis vel leviter curvatis, hyalinis, guttulatis, $25-31 \times 2-2.5\mu$.

Hab. in foliis emortuis *Castaneae crenatae* Thunb. Akiyosidai, Prov. Nagato (Jun. 12, 1967. I. Hino—Typus in Herb. FAUY).

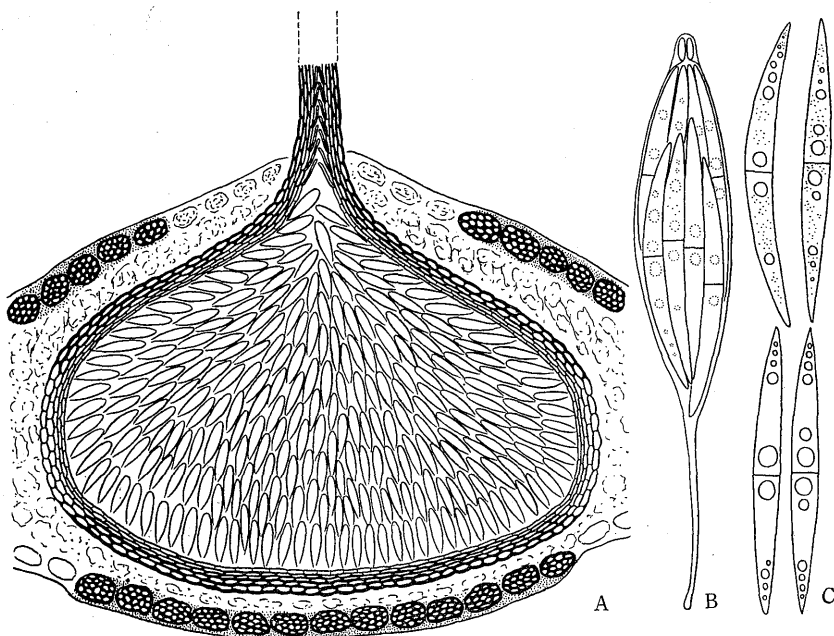


Fig. 3. *Gnomonia setacea* var. *megalocarpa*: A. perithecium $\times 150$. B. ascus $\times 1,200$. C. ascospores $\times 1,300$.

The perithecia are distinctly large and easily visible with the naked eye. Long hair-like ostiolar portion of perithecia is rectangularly divergent from subepidermal portion of the leaves. The asci are numerous produced, separable from the tissue of inner perithecial wall and fill up perithecial locule. The membrane of asci is unitunicate and contains distinct reflecting ring-like apparatus at the apical incrassate portion.

The present fungus seems to be highly similar to *Gnomonia setacea* in all respects to the morphological characters, but the dimension of perithecia, asci and ascospores of the fungus are distinctively large.

96. ***Leptosphaeria arundinacea*** (Sow. ex Fr.) Sacc. in *Nuovo Giorn. Bot. It.*, 7: 320, 1875; *Syll. Fung.*, 2: 62, 1883.

The pseudothecia are subepidermal, sparse, subglobose or depressed globose, $250-300\mu$ in diameter and $180-220\mu$ in height. The peridium is membranous, pseudoparenchymatous, $12-16\mu$ in thickness at lateral portion, yellowish brown,

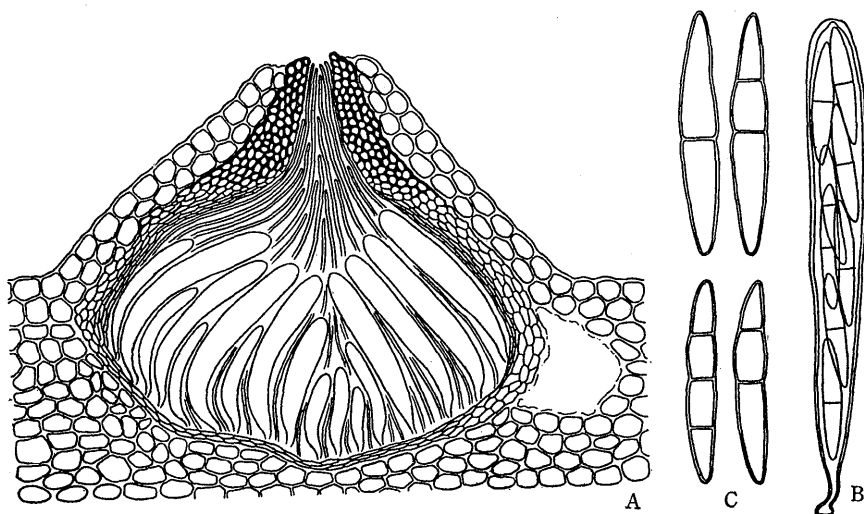


Fig. 4. *Leptosphaeria arundinacea*: A. pseudothecium $\times 250$. B. ascus $\times 600$. C. ascospores $\times 1,000$.

dark and thicker at apical portion, and composed of the cells which are polyhedral and $7.5-12 \times 4.5-6 \mu$. The ostiolar portion is somewhat prominent and slightly erumpent at the apex. The asci are cylindrical or cylindrical clavate, rotundate at the apex, with short stipes, containing eight ascospores in two rows, with numerous paraphysoids, and $100-120 \times 11-13 \mu$. The ascospores are fusoid, 3-septate, constricted at the septa, rotundate at both ends, hyaline, and $28-37 \times 3.5-4.5 \mu$.

Hab. on the dead culm of *Phragmites communis* Trin. Hirakawa in Yamaguti City, Prov. Suô (May 11, 1967. K. Katumoto).

The present fungus was for the first time recorded by K. Hara (1927) in Japan without description. The fungus is known to be restrictedly parasitic on the culms of *Phragmites communis*.

97. *Phaeosphaeria nigrans* (Rob. ex Desm.) Holm, Symb. Bot. Ups. **14** (3): 112, 1957—O. Eriksson, Ark. Bot. **6**: 428, 1967.

Leptosphaeria nigrans (Rob. ex Desm.) Ces. et de Not., Comment. Soc. Critt. Ital. **1**: 235, 1863—Saccardo, Syll. Fung. **2**: 70, 1883.

The pseudothecia are sparse, subepidermal, slightly erumpent at apical portion, globose to subglobose, and $80-120 \mu$ in diameter. The peridium is membranous, pseudoparenchymatous, blackish brown, ca. 10μ in thickness, and composed of the

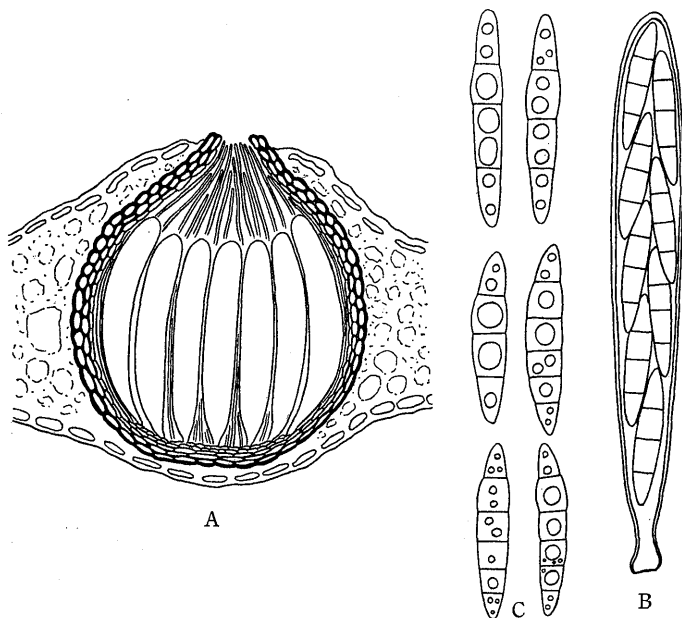


Fig. 5. *Phaeosphaeria nigrans*: A. pseudothecium $\times 400$. B. ascus $\times 1,000$. C. ascospores $\times 1,200$.

cells which are polyhedral, isometric and $6-8\ \mu$ in diameter. The asci are divergent from basal portion of pseudothecia, cylindrical to cylindrical clavate, rotundate at apex, with short stipes, containing eight ascospores in two rows, and $65-90 \times 8-9.5\ \mu$. The ascospores are fusoid to subcylindrical, 5-septate, constricted at septa, rotundate at apex, yellowish brown to brownish and $18.5-33 \times 5-6\ \mu$.

Hab. on the dead leaves of *Triticum aestivum* L. Hirakawa in Yamaguti City, Prov. Suô (May 11, 1967. K. Katumoto).

The first spore-septation in ascospore of the fungus occurs at about one-third portion from the apex, then the proximal hemispore is divided in two cells, while the distal hemispore is done in four cells. The distal cell of the proximal hemispore, namely the second cell from the apex, is distinctly swollen. This character of spore-septation in the writer's fungus is entirely coincide with that of *Phaeosphaeria nigrans* described by L. Holm (1957) and O. Eriksson (1967).

The fungus on *Oryza sativa* L., which has been called by K. Hara to be *Leptosphaeria culmicola* (Fr.) Auersw., seems to belong also to this species in respect

to the morphology of ascospores.

98. **Phaeosphaeria vagans** (Niessl) O. Eriksson in Ark. Bot. **6**: 430, 1967.

Pleospora vagans Niessl in Verh. Naturf. Ver. Brünn, **14**: 174, 1876.—

Saccardo, Syll. Fung. **2**: 267, 1883—Munk in Dansk Bot. Ark. **17** (1): 344,

1957—O. Eriksson, Ark. Bot. **6**: 371, 1967.

The pseudothecia are sparse or gregarious, subepidermal, erumpent at apical portion, subglobose, ovate to oblong, $150\text{--}250\mu$ in diameter, and $200\text{--}300\mu$ in height. The peridium is membranous, pseudoparenchymatous, blackish brown and ca. 30μ in thickness at upper or lateral portion, thin and yellowish brown at basal portion, and composed of the cells which are polyhedral, isometric and $7\text{--}10\mu$ in diameter. The ostioles are pore-like, $15\text{--}20\mu$ in diameter, and without periphyses. The asci are divergent from basal portion of pseudothecia, clavate, rotundate at apex, with short stipes, containing eight ascospores in two rows, $70\text{--}105 \times 12\text{--}16\mu$, and with many paraphysoids. The ascospores are fusoid, 5-septate, constricted at septa, rotundate at both ends, slightly inaequilateral, somewhat attenuate toward both the ends, yellowish brown to brownish in colour, and $22\text{--}35 \times 7\text{--}10\mu$. The

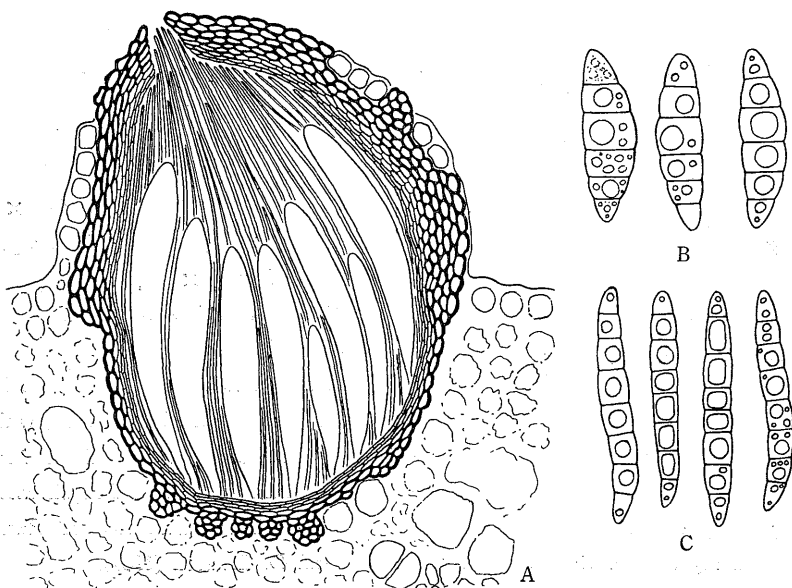


Fig. 6. *Phaeosphaeria vagans*: A. pseudothecium $\times 250$. B. ascospores $\times 900$. C. pycnospores $\times 900$.

pycnidia are sparse or gregarious, subepidermal, globose, membranous, brownish, and 100-150 μ in diameter. The pycnospores are cylindrical, erect or slightly curved, 7-septate, constricted at septa, rotundate at both ends, olivaceous brown, and 25.5-45 \times 3.5-5 μ .

Hab. on the culms of *Phalaris arundinacea* L. Hirakawa in Yamaguti City, Prov. Suô (May 19, 1967. K. Katumoto).

The present species is newly added to the myco-flora of Japan. Ascospores of the fungus are said to be typically septated with longitudinal septa at middle four cells. The writer's fungus, however, has not been found to show any longitudinal septum. The pycnidia of *Phaeoseptoria*-type are abundantly produced among the pseudothecia.

* * * *

94. **Nodulosphaeria rosae** Hino et Katumoto (新種)

栽培バラの枝および萼に寄生。子嚢胞子は4細胞からなり、頂点から2番目の細胞は明らかに膨大し、また胞子の両端には半球形透明の膠質附属物を有する。*N. submodesta* (E. Müller) Holm および *N. araucariae* Hino et Katumoto とともに *Nodulosphaeria* 属中最も単純なグループを構成するが、子嚢殻の頂部に高さ 100~150 μ の口孔部が発達している。

95. **Gnomonia setacea** (Pers. ex Fr.) Ces. et de Not. var. **megalocarpa** Hino et Katumoto (新変種)

子嚢殻、子嚢および子嚢胞子などの形態は母種とまったく変りないが、各部分の大きさはすべて母種の約2倍で明らかに区別できる。クリの葉に寄生し、直径 500~600 μ の子嚢殻と高さ約 1.8 mm に達する口孔部とは肉眼で容易に認めることができる。

96. **Leptosphaeria arundinacea** (Sow. ex Fr.) Sacc.

ヨーロッパ、北アメリカおよび東南アジアなどで広くヨシの稈に寄生することが知られている菌で、日本では原撰祐氏が日本菌類目録 (1927) に初めて記録しているが、記載は発表されていなかった。筆者はこれを山口市で採集した。

97. **Phaeosphaeria nigrans** (Rob. ex Desm.) Holm

コムギの葉に寄生するものを山口市で採集した。本種の名は日本には未記録であるが、原撰祐氏が *Leptosphaeria culmicola* (Fr.) Auersw. と称したイネの寄生菌は、子嚢胞子の形態からみて本種にほかならないと考える。

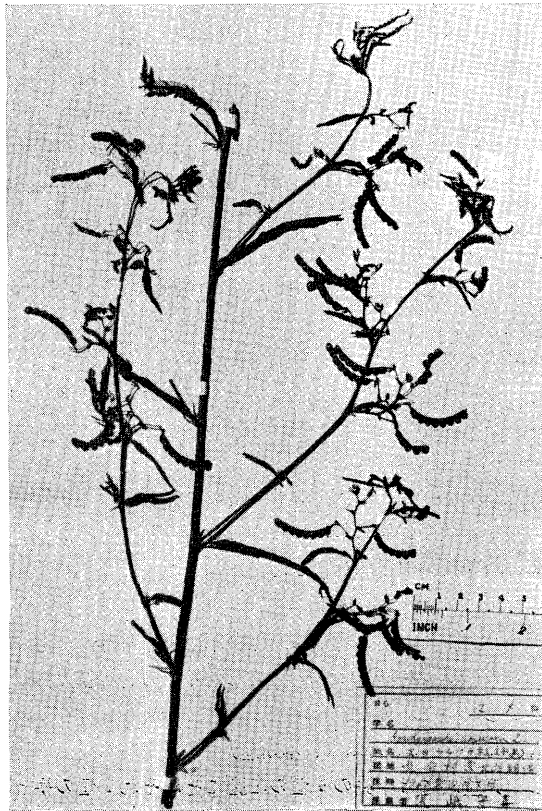
98. **Phaeosphaeria vagans** (Niessl) O. Eriksson (日本新産)

子嚢胞子は5個の横隔膜を有し、典型的には中央の4個の細胞にそれぞれ1個の縦隔膜を生ずるものである。じたがって従来 *Pleospora* 属に含められてきたが、最近この

菌の形態的特徴ならびに *Phaeoseptoria* 型の不完全時代を有することから *Phaeosphaeria* 属に移された。筆者の菌にも多数の分生子殻が混生するのが認められたが、子嚢胞子に縦隔膜を有するものは観察されなかった。クサヨシの稈に寄生。

○新帰化植物エグウチクサネムについて (中島邦雄) Kunio NAKAJIMA: A new alien weed, *Aeschynomene americana* L., in Okinawa

1965年10月24日、筆者は沖縄本島国頭(クニガミ)郡恩納村(オンナソン)にある恩納岳北西斜面にて採集中、ダム側山道一帯で開花結実中のマメ科の一外来植物と思われるものを得た。それは一見クサネムに似るも、よく枝を打ち、特に花色や豆果等が異りエキゾチックな感じである。以来、野生地および自宅の庭に移植した株で観察した結果2~4月に発芽、6~9月茎葉繁茂、9~12月に開花結実し、翌1月には全草枯死する



1年草であることが分った。高さは普通0.6~1m、時に2mに達する。茎は直立(日陰)または斜上(陽地)、幼植物のうちからよく分枝する。茎、葉柄、花柄、豆果に黄褐色の細粗毛を布く。托葉の着点は無毛または剛毛を疎生し、長さ5~25mm、巾1~4mm、通常縁毛がある。葉は長さ5~7.5cm、巾13~21mm、20~60対の小葉からなる。花序に(1-)5-8(-11)の着花をみ、その枝は時に1~2回分枝する。包葉は卵一長卵形で長さ2~4mm、巾1~1.5mm、鋭頭で無毛か鋸齒状の縁毛がある。花は長さ5~10mm、赤褐色。豆果は(3-)6-8(-9)節、節は長さ3~4mm、巾2.5~3.5mm、時々側面か縁にそって腺毛が生え、時々いぼ状突起が出る。種子は長さ2~3mm、巾1.3~2mm、暗